Finder of Financial Fault Lines

Laura Wallace **profiles Raghuram Rajan, the prescient finance economist now steering India's central bank**

RAGHURAM Rajan, now the head of India's central bank, was the IMF's youngest, and first nonwestern, chief economist.

But when Rajan, then 40, turned up at the IMF's Washington headquarters in 2003, many of his peers thought he had entered the wrong building. The finance professor from the University of Chicago was reporting to work as the new economic counsellor and director of the Research Department. But although he was a highly regarded finance economist, he was filling a job that had always been held by a leading macroeconomist. And to the macroeconomists who populate the IMF, Rajan was an unknown entity.

But the IMF picked Rajan for a reason: it wanted to build up its financial expertise in the wake of the Asian financial crisis of the late 1990s. Anne Krueger, then the IMF's second in command as first deputy managing director, had recently read a book Rajan coauthored with Luigi Zingales, *Saving Capitalism from the Capitalists* (2003), so she called Rajan. When asked if he would be interested in being chief economist, Rajan says he told her: "Well, Anne, I don't know any macroeconomics." To which Krueger joked, "Neither do I." He decided to give it a shot and flew out for an interview.

A decade later, when Rajan reported for his first day as governor of the Reserve Bank of India (RBI), no one doubted that he had entered the right building. It was as if all his academic work since his 1991 doctoral thesis on the dangers of cozy bank-firm relationships had been leading up to this day. Plus his stint at the IMF had given him valuable experience, not only in policymaking but in engaging with advanced economies. As one former colleague puts it, Rajan can stand his ground because "he isn't in awe" of the major industrial powers. In addition, he was one of the few economists to have warned about the risks of financial innovation well before a devastating financial crisis hit the United States in 2007 and then disrupted the global economy.

The demands on, and expectations for, Rajan are high—domestically and globally. He is leading India's central bank as the country tries to regain its economic momentum, and policymakers around the world look to him for guidance on reforming the global financial system. Unsurprisingly, the Chicago professor advocates free markets, but, as he wrote in the 2003 book, he also views the market as "a fragile institution, charting a narrow path between the Scylla of overweening government interference and the Charybdis of too little government support."

That said, it is difficult to put Rajan into a particular economic camp. He likes to call himself "a pragmatist." As he tells *F&D:* "It's not just economics but the political layer that is imposed over it that determines outcomes—and the political layer is much less well understood than the economics. So when you combine the two, basically it's a process of navigation. How do I make sure that sensible economics prevails?"

Saving capitalism

Rajan was born in Bhopal, in central India, in 1963, but spent much of his early youth in Indonesia, Sri Lanka, and Belgium (his father was with the foreign office) before returning to India at age 11. He says his fascination with finance dates to his graduate school days at the Indian Institute of Management in Ahmedabad, which followed a bachelor's in engineering from the Indian Institute of Technology in Delhi. He recalls reading Nobel laureate Robert Merton's theory of rational options pricing (a formula for evaluating options, which are contracts that give a buyer the right to buy or sell a financial asset at a set price in the future). He was struck, he said, not only by the theory's "mathematical elegance" but also by "its usefulness in the real world." In 1991, he received a doctorate in finance at the Massachusetts Institute of Technology's Sloan School of Management and became an assistant professor at the University of Chicago's Booth School of Business—both institutions that attracted the top options-pricing researchers.

For most of the next 12 years, Rajan would make Booth his home, teaching banking and finance while undertaking much-cited work with such colleagues as Doug Diamond and Zingales. In January 2003, Rajan won the American Finance Association's inaugural Fischer Black Prize for the leading finance researcher under 40, for "path-breaking contributions to our knowledge of financial institutions, the workings of the modern corporation, and the causes and consequences of the development of the financial sector across countries."

The prize announcement noted that "even while many economists were extolling the virtues of bank finance, Rajan pointed out in his influential Ph.D. thesis that there might be a downside to cozy bank-firm relationships of the kind that one saw in Japan." It goes on to cite his work with Diamond that "knits together the microtheory of banking with macroeconomic theory," along with shedding more light on "the role banks play in the provision of liquidity, why this function makes banks so prone to systemic crises, and why changes in monetary policy have such a significant effect on bank lending." And it cited his work with Zingales that provided "a new method of pinpointing the effect of institutions on economic growth" and showed that "industries dependent on external

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finance grow faster in countries that have a more developed financial system," thereby helping to "debunk the belief that a country's financial system is a sideshow with little effect on its economic growth."

Rajan and Zingales built on these findings in their 2003 book, which argues that many countries have underdeveloped financial systems because of the political opposition of the elite, who fear losing their position if access to finance becomes freer and they face competition. Rajan believes that the book is just as relevant today given the post–financial crisis swing into what he considers "overtaxed and overregulated economies," when what is really needed is "to keep our economies flexible to find the solutions."

Rajan would go on to win numerous other awards, including India's Infosys Prize for Social Sciences-Economics in 2011 and the Deutsche Bank Prize in Financial Economics in 2013. At the Frankfurt award ceremony, Diamond, one of the presenters, said Rajan's work "always is done with a clear view of how the research topics and the results can help make the world a better place." He also called Rajan "incredibly fair" and "the voice of reason in our faculty"—noting that at the University of Chicago, and especially at Booth, "he has hardly an enemy despite taking strong positions on controversial views."

From academia to the IMF

In August 2003, Rajan took over as IMF chief economist from Harvard's well-known Kenneth Rogoff. Rajan admits that "it was an interesting transition." He recalls, with a smile, that "the reaction was—after Ken Rogoff, this gigantic macroeconomist—'Who's this guy?' You know, 'Rajan who?'" He says that "one of the first things that I had to establish was that I knew some macroeconomics," and he worked hard to keep—and attract—a good team. "When people started wanting to come in [to the Research Department], I realized that we had turned the corner."

With the global economy relatively calm—the turmoil finally subsiding from an Argentine default at the end of 2001—Rajan was able to step up financial sector research and explore how to integrate financial sector issues into the IMF's economic country models. This might have seemed doable given that the IMF already had models for handling fiscal and monetary issues. But creating a model for financial issues turned out to be much tougher. As a result, while Rajan is credited with laying the groundwork, the issue is still very much a work in progress, not just for IMF researchers but for hundreds of academics.

The big difference is that a decade ago creating such a model lacked urgency, whereas now it is a high priority. As Rajan wrote in a Project Syndicate column in August 2013: "In the run-up to the 2008 financial crisis, macroeconomists tended to assume away the financial sector in their models of advanced economies. With no significant financial crisis since the Great Depression, it was convenient to take for granted that the financial plumbing worked in the background. Models, thus simplified, suggested policies that seemed to work—that is, until the plumbing backed up. And the plumbing malfunctioned because herd behavior—shaped by policies in ways that we are only now coming to understand—overwhelmed it."

IMF Chief Economist Olivier Blanchard says that "we've made a lot of progress in how we look at the financial system, at isolating some kinds of risks, and getting the data that allow us to do more work in real time. But it's not as if we have a complete understanding of the issues, and the integration of the two is progressing but it's not there yet." The fundamental problem, Blanchard says, is that "we're not sure what financial stability means." He also worries that a macrofinancial model could remain elusive—that "it's going to be a cat-and-mouse game forever"—because "maybe if we identify the risks today, maybe in two years it's a different set of risks in a different part" of the financial system.

What makes Rajan a key figure in these financial debates is what some colleagues say is his ability to see the forest for the trees. Stijn Claessens, an assistant director of the IMF's Research Department, says Rajan is one of "a small set of people who academically as well as professionally have the skills to be able to talk about macroeconomics and know finance in the sense of the institutional details, plus see the links and how they interface and work together." Says Chicago's Anil Kashyap (also a Rajan coauthor): "The arguments about setting interest rates are usually pretty simple. In contrast, the evolving debate over how to deliver financial stability is much more nuanced, in part because we do not have a standard workhorse model to rely upon. Raghu has the great advantage of having a clear vision of the financial system and what does well and where it poses challenges. I think this is why he has been at the forefront of many of the financial stability debates."

Showdown at Jackson Hole

Not that Rajan's vision is always well received. In August 2005, he came in for heavy criticism following what turned out to be a prescient speech about the dangers lurking in the financial system. He was invited to speak on how the financial system had evolved under Alan Greenspan (the soon-to-retire chairman of the Federal Reserve Board) at the annual symposium of central bankers and other high-powered economists in Jackson Hole, Wyoming. He says he had expected to find that the dramatic expansion in financial markets had reduced the risks for banks, but instead, the figures that his staff assembled showed the opposite.

With Greenspan in the audience, Rajan delivered a talk based on his paper "Has Financial Development Made the World Riskier?" He warned that recent financial innovations (such as credit default swaps, which act as insurance against bond defaults) could create "a greater (albeit still small) probability of a catastrophic meltdown." This message did not go down well in some quarters. Former U.S. Treasury Secretary Lawrence Summers called Rajan's premise "slightly Luddite" and "largely misguided." Federal Reserve Board Vice Chairman Donald Kohn suggested that Rajan was nostalgic for the old days of bank-dominated systems—which Rajan strongly denied.

Rajan has written that he left Wyoming with some unease—not because of the criticism, but because "the critics seemed to be ignoring what was going on before their eyes" (see box). Several years later, his warning came true: the U.S. market for subprime mortgage securities began to implode in 2007, leading to the global financial crisis.

Of course, Rajan's time at the IMF was about far more than Jackson Hole. He says it was a tremendous on-the-job learning experience during which he sharpened his macroeconomic skills. He also immersed himself in the art of global economic policymaking—for example, leading a team to try to help some major economies reduce their huge (and unprecedented) balance of payments imbalances. It was also his first stint as a manager—a hundred people worked for him in the Research Department. But that number must now seem incredibly small, as he oversees 17,000 staffers at the RBI.

Former IMF colleagues say that what is so remarkable about Rajan is his humility, integrity, and intellectual curi-

Not ready for the red flags

Was there anything Raghuram Rajan could have done to ensure that his message was heard at Jackson Hole? He thinks not, for two reasons.

First, economic times were good, so it was difficult to persuade people to take steps that might slow growth to address a low-probability risk. After all, the Federal Reserve had just dealt with the dot-com crisis by pumping liquidity into the market, and there was a widely held view that "if another crisis erupted, it could be dealt with in the same way—even though the problem this time was bank credit, not a loss of market value," he tells *F&D*.

Second, the remarks were delivered at a fete honoring Federal Reserve Chairman Alan Greenspan, who held a widely shared belief "that the key players in the financial system had no incentive to go off track"—and trying to convince the audience otherwise was a tall order. "These are smart guys. They're from Goldman Sachs. They're from JPMorgan. They're paid a ton of money. They're the smartest kids in the room. Why would they blow up their business? And who are we, you know, low-paid regulators, thinking that we know more about their business than they do? And the answer is no, we don't know more about their business than they do, but we have different incentives. They're locked into this competitive frenzy. And we're the guys who can stop them."

osity and rigor. Jonathan Ostry, a deputy director of the Research Department, says that Rajan "will let people go forward with their ideas, giving them virtually all of the credit, even when he had significant input." He was also "willing to take controversial positions both internally and, within the limits of his position, externally, to an extent that, frankly, I'd never seen before."

In December 2006, with his IMF contract done, Rajan returned to Chicago, where he had the time and academic freedom to delve further into the repercussions of financial innovation. The result was *Fault Lines*, which won the Financial Times and Goldman Sachs prize for best business book in 2010. Rajan cautions against making the financial sector ("bankers gone mad") the scapegoat for the crisis, because the blame rests with complex and wide-ranging fault lines that include

- domestic political pressures (arising from income inequality) that create easy credit;
- export-led growth strategies (as in China, Germany, and Japan) that rely on indebted U.S. consumers; and
- greater financial risk-taking fed by a belief that governments will save the day.

Back to India

Rajan may have made his career in the United States, but he never forgot India, making it a frequent topic of speeches and research. He says that he was drawn to economics because it offered a way to help India enter the "pantheon of nations." In 2008 he got the chance to help shape India's financial sector when he chaired a high-level government committee on financial sector reforms. The committee report, "A Hundred Small Steps," suggested that the RBI should target a single objective—low and stable inflation—rather than juggling multiple mandates (such as inflation, the exchange rate, and capital flows).

It also proposed that India promote the availability of financial services—including credit, saving, and insurance products—to a wider number of people (especially in rural areas, where most people lack access to formal sources of credit and insurance); reduce the heavy government presence in the banking system; and step up foreign participation in its financial markets.

In September 2013, he took the helm at the RBI, after five years of advising Prime Minister Manmohan Singh from Chicago and a year as chief economic advisor in the Finance Ministry in Mumbai. At that point, India's markets were in turmoil because of rising inflation, large fiscal and current account deficits, and a slowdown in growth. But he moved quickly to stabilize the rupee, reduce inflation sharply, and build up foreign exchange reserves—earning him the sobriquet "rock star" in the local media. He also wasted no time in laying the groundwork for adopting an inflation target and is pursuing many other reforms suggested in "A Hundred Small Steps."

Rajan's hope is that the RBI can help India create jobs by ensuring macroeconomic stability. In the process, World Bank Chief Economist Kaushik Basu hopes that Rajan can encourage the RBI to be "a bit more experimental." Basu, who preceded Rajan as India's chief economic advisor, says emerging market economies need not rely so heavily on the monetary practices that worked well in the major industrial countries, although the risks of central banking efforts to guide an economy are such that "most central banks play it tame by going by those rules." Basu says central banks might say, "This policy worked very well in a rich country but may not work well in my country, and I'm going to try a slightly different intervention in the interest rates," playing around "with new policies to see if they work. Raghu is in a position to do that given his background."

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In global financial circles, Rajan made headlines early in 2014, when he told Bloomberg TV India that "international monetary cooperation has broken down"—a reference to the Federal Reserve's indication that it was contemplating withdrawing some of the stimulus it had employed to reinvigorate the U.S. economy. Later, he publicly scolded the major central banks for focusing solely on what was good for their own economies without taking into account the financial turmoil their low-interest-rate policies were unleashing in emerging market economies. These economies had to cope with massive inflows of funds seeking higher yields. And he is calling for central banks in countries that are the source of those funds "to reinterpret their mandates to consider the medium-term effects of recipient countries' policy responses, such as sustained exchange rate intervention."

As Rajan put it in a June 2013 lecture at the Bank for International Settlements: "In a world integrated by massive capital flows, monetary policy in large countries serves as a common accelerator pedal for the globe. One's car might languish in a deep ditch even when the accelerator pedal is fully pressed down, but the rest of the world might be pushed way beyond the speed limit. If there is little way for countries across the globe to avoid the spillover effects of unconventional policies emanating from the large central banks, should the large central banks internalize these spillovers? How? And will it be politically possible?"

Rajan now has an opportunity afforded few academics—to put in practice what he has long preached. The RBI (as well as central banks in other emerging market economies) may not be the most powerful car on the block, but for Rajan, this chance to be an exemplary driver is the opportunity of a lifetime! ■

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